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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/759,707	01/16/2004	Sheng-Nan Lu	CFP-015520 (15745/432)	8441

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EXAMINER

KYLE, MICHAEL J

ART UNIT	PAPER NUMBER
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3676

DATE MAILED: 05/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/759,707

Applicant(s)

LU ET AL.

Examiner

Michael J Kyle

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1/16/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 6, and 7, are rejected under 35 U.S.C. 102(e) as being anticipated by Lu et al (“Lu”, U.S. Patent No. 6,813,813).

3. The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

4. With respect to claim 1, Lu discloses a hinge member having a seat (10) with lateral and upright (11) portions. The upright portion has a hole (see figure 2) and a recess (13). Lu also discloses a pintle (30) with a non-circular cross section extending through the hole and having an external thread at a first end. A second end of the pintle has a connecting part (see figure 2). A nut (80) is engaged with the external thread. Lu further discloses a fastener assembly (60) comprising a positioning member (50) provided between the upright portion (11) and the nut

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(80). The positioning member (50) has a non-circular cross section corresponding to the pintle and a protrusion (55) engaged in the recess (13) in a closed status of a notebook computer. A resilient member (60) is provided outside the pintle and between the positioning member (50) and the nut (80).

5. With respect to claims 6 and 7, Lu discloses a first washer (12) between an upright portion and the connection part. Lu also shows a second washer (70) between the resilient member (60) and the nut (80).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lu.

8. With respect to claim 4, Lu discloses the resilient member (60) to include multiple elastic dished disks with back to back configuration. Lu does not show the disks to have a non-circular opening. However, it is considered within the level of one having ordinary skill in the art to modify the opening the disks to be non-circular as no new or unexpected result arises from such a modification. Regardless of the shape of the opening, the disks are still compressed into contact with each to frictionally resist the turning of the hinge. It would have been obvious to one having ordinary skill in the art at the time of the invention to make the openings of the disk

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non-circular, as no new or unexpected result is produced. Additionally, examiner cannot find any criticality to this limitation in the specification.

9. With respect to claim 5, Lu does not show the dished disks arranged to have an axial thickness gradually increased from the thickness of the previous elastic disk as the arrangement of the elastic disks extends from the positioning member to the nut. However, examiner cannot find any criticality in the specification for this limitation. As such, it is considered that one having ordinary skill in the art would know to arrange this disks as claimed, as a new or unexpected result is not produced, and there is no clear advantage to such an arrangement. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Lu, such that the elastic disks are arranged to have an axial thickness gradually increased from the thickness of the previous elastic disk as the arrangement of the elastic disks extends from the positioning member to the nut because no new or unexpected result is produced.

10. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lu in view of Kaneko et al ("Kaneko" U.S. Patent No. 6,421,878). While Lu discloses a protrusion a recess, Lu fails to disclose the upright portion to have two recesses, and the positioning member to have two protrusions as claimed.

11. Kaneko teaches a hinge arrangement having a seat (1, 4, 5), pintle (2), positioning member (6), and resilient member (7). The seat (5) includes two recesses (5c) diametrically opposite each other about an aperture. The positioning member includes two protrusions (6b) formed at two diametrically opposite sides of the aperture and respectively positioned in the recesses. Kaneka uses this arrangement so that as the hinge is turned the protrusions move in

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and out of the recesses. This arrangement allows for a screen of a computer to be opened and closed with a low rotation moment at small angles and a large rotation moment at larger angles (column 6, lines 8-17). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Lu as taught by Kaneko in order to provide variable rotation moments. The outermost surfaces of the protrusions of Kaneko appear to be curved (see figure 4).

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following references are cited to further show the state of the art with respect to hinges with frictional resistance: Huong, Miura, Lu (U.S. Patent No. 6,256,838), Shin, Chae, Lu et al (U.S. Patent No. 6,666,422) and Lu et al (U.S. Patent No. 6,779,234).

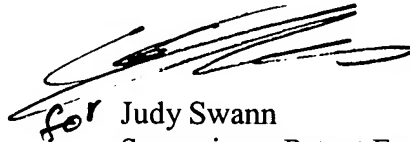
13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J Kyle whose telephone number is 571-272-7057. The examiner can normally be reached on Monday - Friday, 8:30 am - 5:00 pm.

14. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Swann can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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15. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mk

A handwritten signature in black ink, appearing to read "for Judy Swann".

Judy Swann
Supervisory Patent Examiner
Technology Center 3600